

Serial No. 09/927,466  
Amdt. dated March 17, 2004  
Reply to Office Action of January 9, 2004

Docket No. K-0307

**Amendments to the Abstract:**

Please replace the original Abstract with the Substitute Abstract enclosed herewith.



## **ABSTRACT**

A method is provided for controlling an air fuel ratio in a gas furnace which can maintain optimum performance in combustion, irrespective of variation in temperature control stages. Air quantity and fuel quantity are integrally, rather than separately, controlled through the detection and adjustment of variations in each until the air fuel ratio reaches an objective value. In this manner, transient phenomena caused during the burning operation is prevented, and optimum combustion performance is maintained regardless of the temperature variation.